

ABSTRACT OF THE DISCLOSURE

An advanced adaptive basedband/RF predistorting device, which advantageously uses the concept of digital receiver technology into power amplifier (PA) linearization area. The predistorting device performs an instantaneous characterization of the PA using two digital receivers to supply its AM-AM and AM-PM transfer functions.

1. A predistorting device for a power amplifier (PA) comprising:
a. a digital receiver (DR) configured to receive a signal from the PA and output a digital signal;
b. a digital-to-analog converter (DAC) configured to receive the digital signal from the DR and output an analog signal;
c. a predistorter configured to receive the analog signal from the DAC and output a predistorted signal to the PA;
d. a control unit configured to control the DR, the DAC, and the predistorter.